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ABSTRACT

The Effective Schools Program in St. Louis, Missouri, public schools expanded the concept of effective schools developed in Project SHAL (1980-1984). The following five characteristics are considered effective school factors: (1) strong administrative leadership (2) high teacher expectations; (3) positive school climate; (4) total school instructional emphasis; and (5) ongoing student assessment. In the valuation of Project SHAL, each school competed only with itself to achieve progress in implementing the effective schools characteristics and with its own prior test results demonstrating pupil mastery of basic skills. Project SHAL had as a goal the development of a replication model. The replication model field test at Project SHAL schools indicated the following: (1) complex educational change takes time; (2) different school units adopt/adapt change at different rates and with different emphases; (3) school size affects rapidity of change and degree of implementation; (4) amount of effort in planning, preparation, and special training for personnel positively affect implementation; (5) support of central administration is a key element in implementation; (6) the initial effort probably benefits from the halo effect more than later efforts; and (7) in a process of mutual adaptation both school and innovation undergo some adjustments. The replication /implementation model provides a reasonable description of the change process involved in the implementation of effective schools factors in Project SHAL. A SHAL Implementation Assessment Guide is provided as an appendix; answers to the questions posed provide a comprehensive evaluation of the program. (LHW)

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Presentation

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Project SHAL: An Analysis of Implementation in the St. Louis Public Schools - Findings from the Replication Implementation Field Test, June, 1984

In 1984 the programs and activities involved in conducting Project SHAL were reviewed and analyzed. This paper presents the general findings from the Replication/Implementation Model Field Test, June 1984, conducted under the leadership of C.M. Achilles and Rufus Young, Jr.

The Effective Schools Program has been organized and commissioned to expand the concept of effective schools developed in Project SHAL (1980-1984). The original project, initiated under the leadership of Assistant Superintendent Rufus Young, Jr., received financial support from the Danforth Foundation, Parsons Blewett Memorial Fund, and Desegregation funds. Project SHAL, began in 1980 involving 4 schools, was expanded in twelve additional schools in 1982, and four more schools were included in 1983. This paper reports findings relative to the project in these schools. (See Chart - Expansion of Effective School Program, page 9.)

Effective School Research

Ronald Edmonds and his colleague, Lawrence Lezotte, in a study, The Search for Effective Schools asked the question: "Are there schools that are instructionally effective for poor children?" (1979) However, several years before the Edmonds' research, Christopher Jencks in his now famous study, Inequality: A Reassessment of the Effect on Family and Schooling in America (1972), strongly suggested that learning outcomes within schools were influenced by family background. That is, schooling for poor and/or minority children did not compensate for economic disadvantages.

Two researchers, Ron Edmonds and Larry Lezotte, challenged the major findings of the Coleman study. They set out to locate and study schools in poor and/or minority areas in which children were doing well in school as measured by standardized tests. They found many schools which they called effective schools. Moreover, they noted these schools shared certain characteristics that have come to be known as the effective school factors or correlates.

Generally, these factors can be summarized as:

1. Strong administrative leadership
2. High teacher expectations
3. Positive school climate
4. Total school instructional emphasis
5. Ongoing student assessment

Strong Administrative Leadership

Effective school research indicates principals assume the role of the instructional leader and play an integral part in instructional program decisions.

These are evidenced by:

.Monitoring techniques
.Articulating the school mission
.Programming (schedules)
.Providing participatory planning and decision making
.Focusing staff meetings on instruction

High Expectations

A large body of research reviewed by Brophy and Good (1974) establishes that some teachers have differential expectations for students, and these expectations result in differential treatment and therefore differential student outcomes. A cyclical process is then set in motion and is often referred to as the self-fulfilling

prophecy.

High expectations in effective schools permeate the entire school setting and are conveyed through particular behaviors of the principal and teachers such as:

- Building goals established on national and regional norms with expectations that students will achieve
- Inservice programs focused on expectations, interactions, and achievement
- Academic challenges for students regardless of their performance level
- Confidence building in teachers regarding their ability to teach all students.

Positive School Climate

The school climate in effective schools is characterized as being safe, orderly, and conducive to learning and affects how students feel and learn. A positive school climate is typified by:

- Building pride, sense of community, and sense of school spirit
- Maintaining orderly, clean, safe environment conducive to learning
- Establishing high attendance rate for staff and students
- Building cooperation among teachers working as teams to maximize student learning
- Identifying specific procedures for conducting routine tasks

Total School Instructional Emphasis

In an effective school, the instructional focus is broad and pervasive, understood by all personnel, and is facilitated by the decision making of the principal and teachers, which emanates from a uniform district-wide curriculum. The instructional focus addresses the accountability of staff for student outcomes by:

- Developing commitment to total school instructional focus
- Providing for total content coverage
- Providing training regarding effective teaching strategies
- Developing an emphasis on reward rather than punishment

Ongoing Assessment

In a major effort to ensure minimum mastery for all students,

results of regular assessment program of pupil progress identify skills that have been learned and skills to be learned. The results of these assessments provide direction for the classroom instructional programs.

Periodic checkpoints are established in which the principal and staff review the progress and revise the program to meet the instructional objectives through:

- .Focusing on the use of specific monitoring devices
- .Generating strategies for daily informal assessment of pupil progress
- .Providing organizational restructuring of the classroom setting and altering instructional strategies based on assessment results
- .Producing strategies for planning daily lessons based on pupil performance

Project SHAL Goals

In a proposal to the Danforth Foundation, the designers of Project SHAL stated two goals:

1. To develop a plan or model that would track the implementation of Project SHAL, and serve as a replication model if SHAL were to be initiated in other schools, and

2. To work with youngsters so that the pupils would eventually attain and maintain grade level as compared to national norms.

Although the target of each youngster achieving grade level is yet to be achieved, it is clearly appropriate now to assess what progress is being made toward that goal.

Project SHAL - A Replication Model

During the 1981-82 school year, a group of researchers worked with the SHAL principals to develop a "replication model" which was based on prior work done at the Midwest Race and Sex Desegregation Center, Kansas State University.

The replication model is based theoretically on concepts of the change process built in a series of steps which have as one philosophic foundation the general concepts of Kohlberg's (1975) stages of moral development.

A review of the effective schools research provided indicators of an advanced stage of program implementation for each element of effective schools in SHAL. Samples of these indicators of success were entered at the Institutionalization/Renewal level of the matrix as desiderata or ideals to be sought in SHAL schools. At the bottom of the matrix, Orientation was identified by a synopsis of steps needed to get started in SHAL. The next two "levels" are continuous stages of growth toward the ideal expressed at the top thus completing the stages of the replication model as follows:

1. Orientation/Assessment characterized by intensive training and an assessment of the school situation via staff perceptions.

2. Planning/Design which provides the time for school staff to identify school programs for the improvement of student academic achievement.

3. Implementation characterized by school staffs being devoted to program development, supervision,monitoring and the activitation of school plans developed in the Planning/Design phase.

4. Renewal during which school staffs modify programs and generally replicate existing productive programs.

After interviews with administrators and SHAL principals and visits to SHAL schools, samples of behaviors or events were entered into the levels in an approximate time relationship showing growth and change. The principals and others reviewed the matrix and the developers "tested" it through visits to the schools.

The goal of Project SHAL, development of a replication model, was achieved. Based upon this model and the notion of effective

schools, three checklists were developed. These were refined, field-tested and later used to determine some context or descriptive information regarding the SHAL Project.

Project SHAL operated with several impediments to the achievement goal.

1. Pupils are very mobile.
2. There are many teacher transfers and/or reductions in staff resulting in difficulty in keeping a stable, trained staff.
3. An inordinate percent of pupils in the SHAL schools were performing far below the national average on standardized tests.

Replication/Implementation Field Test

Data Collection

Four teams of three observers made up of university professors and graduate students reviewed and analyzed achievement data and visited each school. The purposes were to determine:

1. How well the replication model depicted the implementation of the SHAL Program elements, and
2. To what degree the various schools had implemented the five effective school correlates.

Using the SHAL Observation Guide, team members recorded their observations relative to the five factors of effective schools as described by Ronald Edmonds. A total score was derived by averaging the scores (scaled 1-5) attributed to each school on each of the five factors by the observation team. (Appendix 1)

Schools that achieved 3.50 and above on all five factors had made outstanding progress in SHAL implementation; schools that rated 3.50 and above on four of the factors and/or a total mean of 3.50 had made substantial progress; those between 3.00 and 3.49 on four of five factors and a total mean of 3.00 on individual factors and/or

below 3.00 (total) were schools in the planning or early implementation stages. (See Table 1, Means and Ranks on Implementation Factors) Table 1 presents each school's mean observation score on each of five factors and as a total, and then ranks the 19 schools by factor totals.

Data Analysis

Schools were grouped using the scores. The four schools having been in the program the longest had the rank of 1, 2, 3, and 4. The second group of schools ranking 5-16 were in the second group of schools entering the project. The last group of schools ranking 17-19 were in the third group of schools entering the program. (Refer to Chart - Expansion of Effective School Program.)

This finding reveals the relationship of time to the degree and level of factor implementation.

In an attempt to find out which of the five factors had major influence on implementation (defined here as the Total Score for each school), Pearson correlations were run between the Total Score and the score in each factor by implementation group. (First Group - Outstanding Progress, Group II - Substantial Progress, Group III - Well Underway, and Group IV - Planning/Early Implementation.) Table 3 presents these results. Table 4 presents intercorrelations among the five factors for all project schools.

In Table 3 an interesting result is that in Group I (three years in SHAL), the highest correlation is with Total Score and Basic Skills emphasis. One of the lowest relationships is Administrative Leadership. Note that in Groups II and III there are stronger relationships between Total Score and Administrative Leadership.

It is possible that the initial impetus for the project is the

principal, but as the project gets well underway, the emphasis is placed on what teachers do in the classroom.

Overall, each of the five factors is shown to be highly and positively related to the total school with Administrative Leadership and Expectations at the top.

The only low correlation appearing in Group III (schools in the first year of SHAL implementation) is the relationship between Basic Skills Emphasis and Total Score. This suggests that teachers have not yet "become believers" in SHAL.

Table 4 presents the intercorrelations among the five factors and the Total Score for all SHAL schools (N = 19). High correlations are found in almost all cases, with only one relationship (Climate and Basic Skill Emphasis) failing to reach significance at $p \leq .05$. The highest positive relationships are Administrative Leadership with Total Score, Expectations and Basic Skills Emphasis and Expectations with Total Score. The weakest, but positive, relationships are Climate with Basic Skills Emphasis, Administrative Leadership and Expectations, and Assessment with Administrative Leadership and Basic Skills Emphasis.

TABLE 1
MEANS AND RANKS OF SCHOOLS ON IMPLEMENTATION OF FACTORS

School and Implementation Group		Administration		Basics		Climate		Expectations		Assessment		TOTAL		AVE. RANK
		$\bar{x}$	Rank	$\bar{x}$	Rank	$\bar{x}$	Rank	$\bar{x}$	Rank	$\bar{x}$	Rank	$\bar{x}$	Rank	
I	School 1	4.13	2	3.83	4	3.83	3	3.80	5	3.93	4	3.90	3	3.5
	School 2	3.45	14	3.25	13	3.52	9	3.68	9	3.65	9	3.51	11	10.8
	School 3	4.04	3	3.45	10	3.74	4	3.50	11	3.60	11	3.67	7.5	7.7
	School 4	3.97	4	3.93	2	4.14	1	3.79	6	3.98	2	3.96	2	2.8
II	School 5	3.54	11	3.40	11	3.19	14	3.03	15	3.23	15	3.28	13	13.2
	School 6	3.49	12	3.20	15	3.35	12	3.46	12	3.65	9	3.43	12	12
	School 7	3.47	13	3.50	8	3.56	8	3.88	3	3.78	6	3.64	9	7.8
	School 8	2.51	19	2.81	17	3.41	11	3.25	13	2.78	19	2.94	16.5	15.8
	School 9	3.78	9	3.48	9	3.74	4	3.78	7	3.60	11	3.67	7.5	9.5
	School 10	4.37	1	3.95	1	4.14	1	4.05	1	4.00	1	4.10	1	1.0
	School 11	3.67	10	3.88	3	3.32	13	3.53	10	3.50	14	3.58	10	10
	School 12	3.95	5	3.73	5	3.64	7	3.83	4	3.79	5	3.79	5	5.2
	School 13	3.89	6	3.72	6	3.46	10	4.00	2	3.95	3	3.80	4	5.2
	School 14	3.89	6	3.60	7	2.00	19	2.75	18	3.72	7	3.19	14	11.7
	School 15	2.92	16	2.72	18	2.97	17	2.92	17	3.03	18	2.93	18	17.3
	School 16	3.83	8	3.37	12	3.72	6	3.78	7	3.68	8	3.68	6	7.8
III	School 17	2.80	18	3.22	14	2.69	18	2.62	19	3.17	17	2.90	19	17.5
	School 18	2.81	17	2.59	19	3.00	16	3.10	14	3.20	16	2.94	16.5	16.2
	School 19	3.02	15	2.95	16	3.17	15	3.00	16	3.60	11	3.15	15	14.7
MEAN SCORES by IMPLEMENTATION GROUP														
I (n=4)		3.89	1	3.62	1	3.81	1	3.79	1	3.69	1	3.76	1	1
II (n=12)		3.61	2	3.44	2	3.38	2	3.56	2	3.52	2	3.50	2	2
III (n=3)		2.88	3	2.92	3	2.95	3	2.91	3	3.32	3	2.99	3	3
TOTAL (n=19)		3.46		3.33		3.38		3.42		3.51		3.42		

Table 1 presents, for each school, that school's mean observation score on each of five factors and total, and that school's rank (of 19 schools) on each factor and total. Note that the range of implementation scores (total) is 2.90 to 4.10 and that the range of all scores among factors is 2.00 to 4.37.

Data show that for each factor and for total there is some average gain relative to the amount of time in SHAL (implementation group). This is not an unexpected finding, but it tends to confirm that it takes time for schools to adopt innovations. This relationship is constant. (Table 1).

When schools are grouped using "scores" into: I. Outstanding progress in SHAL; II, substantial progress on SHAL; III, well underway; IV, planning and early implementation according to the criteria stated previously, the following is the result (Table 2). Note that groups I and II contain only schools that have been in SHAL for two or more years. This suggests that time is a key factor in the adoption or implementation of change, and especially a complex change such as Project SHAL.

TABLE 2
GROUPING OF SHAL SCHOOLS INTO LEVELS OF IMPLEMENTATION BASED ON "SCORES" FROM IMPLEMENTATION FIELD TEST

I Outstanding Progress	II Substantial Progress		III Well Underway	IV Planning/Early Implementation
				School 18
School 1	School 3	School 11	School 5	School 8
School 4	School 2	School 16	School 6	School 14
School 10	School 7	School 13		School 15
School 12	School 9			School 17
				School 19

In an attempt to determine which of the five factors had major influence on the implementation (defined here as the Total Score for each school), Pearson correlations were run between the total score and the score on each factor by implementation groups. Size of the sample, with such small numbers as 4, 12, 3, was bound to influence the significance level. However, it was felt that the computations might provide some indicators that could be useful for directing training, energy, or emphasis. Table 3, presents these results. Table 4 presents intercorrelations among the five factors for all project schools (N=19).

TABLE 3
PEARSON r CORRELATIONS BETWEEN TOTAL IMPLEMENTATION SCORE AND IMPLEMENTATION SCORES ON EACH EFFECTIVE SCHOOLS FACTOR BY IMPLEMENTATION GROUP (SHAL, 1984)

		Adm.	Basic	Climate	Expec.	Assess.
Group I	r	.77	.99	.92	.91	.63
N = 4	sig.	.23	.00	.08	.08	.37
Group II	r	.85	.82	.67	.86	.86
N = 12	sig.	.00	.00	.02	.00	.00
Group III	r	.99	-.07	.86	.46	.99
N = 3	sig.	.07	.96	.34	.70	.06
TOTAL	r	.90	.85	.78	.91	.83
N = 19	sig.	.00	.00	.00	.00	.00

TABLE 4
PEARSON r CORRELATIONS AMONG FIVE "EFFECTIVE SCHOOLS" VARIABLES AND AVERAGE FOR ALL 19 SHAL SCHOOLS (1984)

		Tot.	Adm.	Basic	Climate	Expec.	Assess.
Tot.	r	1.00	.90	.85	.78	.91	.83
	sig.	.00	.00	.00	.00	.00	.00
Adm.	r		1.00	.88	.49	.90	.55
	sig.		.00	.00	.03	.00	.01
Basic	r			1.00	.44	.79	.56
	sig.			.00	.06	.00	.01
Clim.	r				1.00	.53	.83
	sig.				.00	.02	.00
Expec.	r					1.00	.65
	sig.					.00	.00
Assess.	r						1.00
	sig.						.00

SOME 1984 TEST RESULTS

BEST Results

The Basic Education Skills Test (BEST) is given to grade 8 pupils as a minimum skill or competency test. The test has several sections. Table 6 shows the percent of grade 8 pupils passing "all BEST" in the various SHAL schools. Except for the high percent passing School 18(one year in SHAL), there is positive gain by the number of years in SHAL and also in general agreement with the rank of the schools in implementation of SHAL elements. The two SHAL schools that are above the Area I average both started in 1981 below the Area I average; one school (Sh.5) of the two schools (Sh13 and Sh.5) approaching the Area I average started in 1981 below the Area I average. The largest gains (1981-1984) are 58.4 percent (Sh. 1) and 54.3 percent (Sh.18), the two schools that have the highest overall averages.

TABLE 6

PERCENT OF PUPILS PASSING ALL BEST by YEAR
by AREA I and SHAL SCHOOLS

AREA/SCHOOL	1981	1982	1983	1984	YEARS in SHAL	RANK from Table 1, p. 9	GAIN 81-84
Area I	23.6	37.1	35.8	58.7	N/A	N/A	35.1
School 1	14.9	39.5	40.5	73.4	3	3	58.5
School 13	36.7	38.8	32.6	50.5	2	4	13.8
School 5	13.2	17.8	43.5	51.5	2	13	38.3
School 14	12.0	31.3	20.1	34.8	2	14	22.8
School 18	23.5	42.2	42.9	77.8	1	16	54.3

1984 RESULTS for NON-SHAL AREA I SCHOOLS (1984 only)

26.7; 57.8; 68.5; 51.7

The CAT Results (1984)

Tables 7 and 8 present selected CAT results. The sections for comparison are Total Battery: Grade Equivalent (GE), National Curve Equivalent (NCE), and percent of pupils in quartile one, or the lowest quartile. For schools that have been in SHAL for three years, comparisons were between 1981 and 1984 CAT scores; for those in SHAL for two years the comparisons were between 1982 and 1984, and between 1983 and 1984 for those in SHAL for the first year. The NCEs that are underlined are those that indicate that the school/grade has achieved or exceeded the national norm (a SHAL goal). Entries marked by an asterisk (*) show where the test scores went the opposite direction from the expected (i.e., down rather than up).

Of particular note is the high percent of pupils in the lowest quartile in almost every pre-SHAL CAT testing. This indicates the magnitude of the task facing the schools in attaining the national average.

Group I (Schools in SHAL for 3 years: Table 7) This group shows 13 of 18 (72%) CAT NCEs at or above the 50th percentile (national norm). School 1 and Sh. 4 show that all grades have achieved the national norm. In 15 of 18 (83%) grades the percent in the lowest quartile has decreased (a positive result), and in 16 of 18 (89%) situations the grade equivalent (GE) increased from 1981 to 1984. In 1981, only 2 of 18 (11%) of the grades were at or above the national mean; in 1984 it was 13 of 18 (72%). Although some short of the SHAL goal, this is significant progress.

Group II (Schools in SHAL for 2 years: Table 8) This group shows 13 of 47 (28%) CAT NCEs at or above the 50th percentile. (An additional 3 cluster between 48 and 50, which would bring the percent to 34.) In 31 of 47 (66%) grades the percent in the lowest quartile has decreased; in 33 of 47 (70%) situations the GE increased from 1982 to 1984. In 1982, only 7 of 47 (15%) grades were at the national mean; in 1984 it was 28% (with 6% between 48 and 50).

Group III (Schools in SHAL for 1 year: Table 7) This group shows 4 of 11 (36%) CAT NCEs at or above the 50th percentile. (Three of four are in one school, School 19 which has already attained the SHAL goal since there are only three grades in School 19 .) In 9 of 11 (82%) grades the percent in the lowest quartile has decreased, and in 9 of 11 (82%) situations the GE increased from 1983 to 1984. In 1983 no schools (0%) were at the national norm; in 1984 4 schools (36%) were at the national norm. Note, however, that one of three schools accounted for the majority of the gains to or beyond the national norm.

Table 9 provides a comparison of schools by implementation group (I, II, III) showing the percent of grades at or above the national norm (50 NCE). Where the absolute difference between field test results and CAT results is 5.5 or less, we consider the results of the two indicators as comparable. Table 9 shows that in 13 of 19 (68%) cases the absolute difference is 5.5

TABLE 7
CAT RESULTS FOR SCHOOLS IN SHAL FOR ONE AND FOR THREE YEARS

School/Grade		Battery TOTAL GE	NCE	% in low quartile
School 1	81	5.7	41.2	34.6
	6 84	6.9	52.2	10.1
	81	7.1	45.8	22.0
	7 84	8.0	53.2	7.5
	81	8.0	43.2	28.1
	8 84	8.9	51.1	4.6
School 2	81	1.7	47.7	16.5
	1 84	1.7	50.7	11.6
	81	2.5	45.2	21.7
	2 84	2.2*	37.2*	42.1*
	81	3.7	49.7	20.5
	3 84	3.7	50.1	14.3
	81	4.1	40.0	35.1
	4 84	4.2	42.4	37.0*
	81	5.6	48.5	19.7
	5 84	5.6	48.4*	15.9
School 3	81	1.6	44.7	24.2
	1 84	1.8	52.5	12.3
	81	2.2	38.3	41.9
	2 84	3.0	54.7	19.1
	81	3.2	38.6	41.2
	3 84	3.5	44.9	31.3
	81	4.1	40.6	47.2
	4 84	4.4	44.8	23.2
	81	5.0	42.1	24.3
	5 84	6.1	53.6	4.8
School 4	81	1.8	52.6	6.9
	1 84	1.8	55.6	11.8*
	81	2.6	46.5	21.0
	2 84	2.8	50.8	17.7
	81	4.1	56.5	14.5
	3 84	3.7*	50.2	6.3
	81	4.3	43.9	30.9
	4 84	4.9	52.4	4.2
	81	5.4	46.7	25.0
	5 84	6.7	59.6	1.8
School 18	83	6.5	48.3	14.6
	6 84	6.4*	47.0*	13.5
	83	7.0	44.5	22.2
	7 84	7.2	46.1	23.3
	83	8.4	48.0	17.1
	8 84	8.7	50.0	13.2
School 17	83	1.5	40.6	32.8
	1 84	1.7	48.1	18.4
	83	2.0	33.9	52.7
	2 84	2.3	40.2	37.0
	83	3.3	40.0	46.2
	3 84	3.4	41.7	35.5
	83	4.0	43.1	27.1
	4 84	4.5	47.5	19.4
	83	5.6	48.3	19.7
	5 84	5.2*	44.5*	30.1*
School 19	83	1.5	42.1	29.0
	1 84	1.8	52.2	16.3
	83	2.2	38.6	35.8
	2 84	2.9	51.7	20.5
	83	3.4	41.9	29.5
	3 84	3.8	52.1	10.4

*=Opposite from desired direction.
--=at or above National norm

TABLE 8
CAT RESULTS FOR SCHOOLS IN SHAL FOR TWO YEARS

School/Grade		Battery Total GE	NCE	% in Low Quartile
School 5	6 82	5.8	42.0	27.1
	6 84	6.1	43.9	23.4
	7 82	7.0	44.4	24.8
	7 84	6.9*	43.6*	25.4*
	8 82	8.0	45.5	16.4
	8 84	8.0	44.4*	20.8*
School 8	6 82	6.4	47.3	14.4
	6 84	6.7	50.0	9.0
	7 82	6.9	44.2	23.9
	7 84	7.3	47.1	15.6
	8 82	9.0	51.8	7.1
	8 84	8.7*	49.7*	10.6*
School 6	1 82	1.5	41.9	27.3
	1 84	1.3*	34.3*	39.4*
	2 82	2.5	44.6	23.5
	2 84	2.6	48.0	21.2
	3 82	3.4	42.9	36.8
	3 84	3.8	52.3	4.2
	4 82	4.1	40.3	30.4
	4 84	4.5	46.3	20.0
	5 82	5.8	50.7	10.7
	5 84	6.1	53.5	4.5
School 11	1 82	1.7	49.6	11.8
	1 84	1.7	47.7*	22.8*
	2 82	2.2	38.8	32.7
	2 84	2.6	46.9	29.0
	3 82	3.4	41.4	37.4
	3 84	3.4	41.6	36.7
	4 82	4.4	44.8	25.0
	4 84	4.2*	42.0*	40.0*
	5 82	5.0	42.1	29.2
	5 84	6.1	54.3	12.2
School 15	1 82	1.3	33.6	50.0
	1 84	1.6	46.8	25.7
	2 82	2.5	44.0	28.4
	2 84	2.9	52.4	13.6
	3 82	3.4	42.8	30.4
	3 84	3.3*	39.6*	44.4*
	4 82	4.7	49.5	16.3
	4 84	4.8	50.9	20.0*
	5 82	5.7	49.6	17.1
	5 84	5.9	51.6	4.5
School 8	1 82	1.4	36.6	66.7
	1 84	1.5	38.6	39.1
	2 82	2.4	42.0	40.6
	2 84	2.2*	37.8*	44.1*
	3 82	3.6	46.6	25.0
	3 84	3.8	52.0	11.4
	4 82	4.4	45.2	28.0
	4 84	5.1	53.9	10.0

School/Grade		Battery Total GE	NCE	% in Low Quartile
School 14	6 82	6.2	45.3	22.8
	6 84	6.3	46.4	18.1
	7 82	6.7	42.2	26.4
	7 84	7.4	47.4	16.6
	8 82	8.0	43.1	23.6
	8 84	7.9*	42.7*	26.3*
School 10	4 82		50.9	
	4 84	4.2*	41.9*	
	5 82	5.8	51.1	14.3
	5 84	6.6	58.9	
School 7	1 82	1.6	44.7	28.1
	1 84	1.8	52.4	26.9
	2 82	2.2	37.7	38.0
	2 84	2.2	38.3	43.1*
	3 82		40.0	43.0
	3 84		39.8*	46.2*
	4 82	4.3	43.7	30.5
	4 84	4.0*	39.9*	31.7*
	5 82	5.1	42.5	33.0
	5 84	5.4	46.5	32.7
School 12	1 82	1.5	39.3	37.8
	1 84	1.6	46.4	21.4
	2 82	2.0	32.7	58.3
	2 84	1.9*	31.5*	60.8*
	3 82	3.3	40.5	35.2
	3 84	3.3	40.7	40.2*
	4 82	4.5	46.6	28.7
	4 84	4.3*	44.3*	23.8
	5 82	5.1	43.3	30.0
	5 84	5.3	44.9	24.6
School 16	1 82	1.5	40.5	33.3
	1 84	1.6	42.8	25.0
	2 82	2.4	41.9	28.3
	2 84	2.5	44.0	27.5
	3 82	3.7	50.4	11.1
	3 84	3.3*	41.1*	30.0*
	4 82	4.2	41.4	25.0
	4 84	4.8	50.9	10.0
	5 82	5.3	45.2	19.4
	5 84	6.4	56.4	0
School 9	4 82	5.0	53.3	16.7
	4 84	4.2*	42.3*	25.9*
	5 82	5.9	52.6	11.1
	5 84	5.6*	49.2*	9.4

*=Opposite from desired direction (N=46)
--=At National Norm (1984) N=13
47 grade levels represented

TABLE 9

COMPARISONS OF SCHOOLS ON CAT RESULTS AND RANKS AND IMPLEMENTATION FIELD TEST RANKINGS

Group/School	Grades (N)	Grades at 50th NCE	% at 50 NCE	Rank (of 19)	Field Test Rank (p. 9)	Abs. Diff.
I. School 1	3	3	100	2	3	1
School 2	5	2	40	9	11	2
School 3	5	3	60	4.5	7.5	3
School 4	5	5	100	2	2	0
GROUP I	18	13	72	N/A	N/A	$\bar{x}$=1.5
II. School 5	3	0	0	17	13	4
School 6	5	2	40	9	12	3
School 7	5	1	20	13.5	9	4.5
School 8	4	2	50	6.5	16	9.5
School 9	2	0	0	17	7.5	9.5
School 10	2	1	50	6.5	1	5.5
School 11	5	1	20	13.5	10	3.5
School 12	5	0	0	17	5	12
School 13	3	1	33	11.5	4	7.5
School 14	3	0	0	17	14	3
School 15	5	3	60	4.5	18	13.5
School 16	5	2	40	9	6	3
GROUP II	47	13	28*	N/A	N/A	$\bar{x}$=6.5
III. School 17	5	0	0	17	19	2
School 18	3	1	33	11.5	16	4.5
School 19	3	3	100	2	15	13
GROUP III	11	4	36	N/A	N/A	$\bar{x}$=6.5

*Additional 3 grades or 6% between 48 and 50 NCE.

or less. The areas of greatest discrepancy are School 15 (13.5), School 19 (13), School 12 (12), and School 9 and School 8 (9.5). The area of least absolute difference was Implementation Group I, the original SHAL schools where the average discrepancy is 1.5 (6÷4). In Group II the average discrepancy is 6.5 (78.5÷12). In Group III the average discrepancy is 6.5 (19.5÷3). Essentially, except for three schools, the field test results and the CAT results were quite complimentary.

Table 10 groups the SHAL schools by the percent of grades at or above 50 NCE. Data are derived from Table 9. The biggest "surprises" when comparing Table 2 (p. 10) with Table 10 are the reversals of School 12 (from I to IV) and of School 15 and School 19 (from IV to I).* School 12 had high implementation field test scores, but the pupil performance on CAT scores was not correspondingly high. The opposite was true for School 15 and School 19 That is, they both received relatively low scores on the field test observations (Sh. 15 $\bar{x}$=2.93 and School 19 $\bar{x}$=3.15...scores which indicate that SHAL was underway and in the process of implementation) but both enjoyed at least 60 percent of their grades at or above the national norm.

TABLE 10

GROUPING OF SHAL SCHOOLS INTO LEVELS BY PERCENT OF GRADES AT OR ABOVE 50 NCE

I (100-60) Outstanding	II (40 to 59) Substantial	III (20-39) Underway	IV (Below 20) Planning
School 1	School 8	School 18	School 5
School 4	School 10	School 13	School 9
School 19	School 2	School 7	School 12
School 3	School 6	School 11	School 14
School 15	School 16		School 17

*Several explanations seem plausible. The field test team could have visited School 19 and School 15 on an "off" day, a weakness of one-shot visits. The team that visited these two schools could have rated implementation factors lower than other teams.

DISCUSSION

The Field Test of the Replication Model was not an evaluation in the usual sense. It was, however, not easy to keep evaluative and judgemental statements from the report and summaries. If there was any evaluation or competition, it was the individual school competing with itself to achieve progress in implementing the five key effective schools factors that are the heart of SHAL and that school competing with its own prior test results to show improved pupil mastery of basic skills.

The replication model field test seemed to reinforce several notions about educational change that derive from "common sense." Some of these "self-evident axioms" are listed here.

- Complex educational change takes time.
- Different school units adopt/adapt change at different rates or with different emphases.
- The size of the school unit seems to be a factor in rapidity of the change or in the degree of implementation (e.g., School 10 vs. School 2).
- Amount of effort in planning, preparation, special training for personnel, etc. seems to have a positive effect on the level of implementation.
- A key element in implementation is the support of central (Area) administration. As the number of schools in the implementation increases, the direct support to each school by central administration decreases. This decrease seems to influence implementation negatively.
- The initial effort probably benefits from the halo effect more than later efforts; there probably is some impact or influence of the Hawthorne effect in all sites.
- Rather than an exact adoption of the original innovation, there is a process of mutual adaptation where the school and the innovation undergo some adjustments.

The Replication/Implementation model (Appendix C) seems to provide a reasonable description of the change process involved in the implementation of the five factors of "Effective Schools" in Project SHAL. The indicators

at various levels of the model are probably emphasized at those levels, but many of the indicators at the top of the model (Institutionalization and Renewal) are initiated at earlier stages of the process.

That the model provides a reasonable guide of the implementation process is shown by the generally linear and positive progression of events as shown by more thorough implementation of factors (by Implementation Groups I, II, III) over time. This is reinforced by the general linear and positive results (by Implementation Groups I, II, III) on the Implementation Survey and on the CAT results (1984).

It also appears (see Tables 3 and 4, page 11) that the principal's energy and vision are extremely important to the success of this effort, especially at the outset. As the project gets going, emphasis shifts from the principal to the teachers and staff as shown by the correlation coefficients for Basic Skills and for Expectations.

Thus, in answer to key field-test questions:

- The Replication/Implementation model provides an accurate and useful implementation guide.
- The longer that youngsters are in SHAL and the more thoroughly SHAL is implemented, the better the youngsters do on CAT.
- Implementation of a project of the magnitude and complexity of SHAL takes time. Three years is probably a minimum before the positive results begin to be noticed.
- Generally schools that have a) implemented SHAL elements best, b) been in SHAL longer, and c) become "believers" in SHAL (Note narrative summaries, Appendix B) also have shown the most gain in pupil test scores (The CAT results).
- Implementation is not exactly "even" among schools, even those in SHAL for the same number of years. Implementation is a complex factor.
- School size seems to influence results. Note the "unexpected" results of small (School 10, School 9, & School 8) and large (School12) schools on some results.

FORM #2

SHAL IMPLEMENTATION ASSESSMENT GUIDE

INSTRUCTIONS: Record the results of your observations and staff interviews on this form. Mark (4) if the item is clearly evident; (3) if the item is in process of being implemented; (2) if in the planning or start-up stage; (1) if not evident. Record additional appropriate items that reflect SHAL implementation in the blank spaces provided.

ADMINISTRATIVE LEADERSHIP		RESPONSES				SOURCES
A1.	There is a definite structure for inter/intra-grade coordination (committees, etc.).	1	2	3	4	B
A2.	School philosophy (motto, slogans) is visible.	1	2	3	4	B
A3.	Statements of goals and objectives are available and used by all staff.	1	2	3	4	B
A4.	Faculty are directed to adhere to school policies, goals, objectives, philosophy. Uniform adherence to teaching strategies and processes (Principal expects this and encourages it).	1	2	3	4	A,B
A5.	Faculty adherence to goals, etc. (#4 above) is part of teacher evaluation process.	1	2	3	4	A,B
A6.	Records of several current classroom observations, teacher/administrator conferences are available.	1	2	3	4	E
A7.	School budget/expenditure decisions encourage adherence to and accomplishment of goals/objectives (plaques, slogans, awards, field trips, etc.).	1	2	3	4	A,E
A8.	Administration models desired behaviors for teachers (teaching classes, setting norms, serving as resource).	1	2	3	4	B
A9.	Administrator is highly visible in/around school (halls, classes, lunchroom, etc.) and is involved in school activity.	1	2	3	4	D
A10.	Administrator chairs or attends important instructional meetings; uses faculty meetings for instructional improvement.	1	2	3	4	B
A11.	Administrator shows that s/he is a "believer" in the school and its mission (philosophy, goals). Monitors instructional process.	1	2	3	4	A,B
A12.	Administrator schedules (time/space) to make good use of physical/human/fiscal resources (e.g., plans instructional events into schedule).	1	2	3	4	A,E
A13.	Administrator knows school, staff, community, parents, pupils, etc. (speaks to people by name; treats people with respect).	1	2	3	4	A,D

		RESPONSES				SOURCES
A14.	Administrator emphasizes achievement; focuses on school program and is not driven by problem orientation. (Focus on instruction.)	1	2	3	4	B
A15.	Curriculum guide/handbook, etc. available, but constantly being refined and improved.	1	2	3	4	E
A16.	Administrator has standards of performance for self and others.	1	2	3	4	E
A17.	Administrator engages in program planning, implementation, evaluation, refinement.	1	2	3	4	A,B,E
A18.	Administrator develops schedule to support instructional goals, teacher planning, etc.	1	2	3	4	B
	OTHER (Please specify)					
A19.	Administrator consistently and continuely articulates the mission of the school.	1	2	3	4	AB
A20.						
	BASIC SKILLS EMPHASIS					
B1.	Teachers/staff agree on skills to be taught (skill lists, etc.).	1	2	3	4	B
B2.	Basic skills subjects have a minimum of interruptions (by announcements, field trips, etc.).	1	2	3	4	B
B3.	Faculty meetings, committees, etc. focus on basic skill achievement.	1	2	3	4	B,E
B4.	Administrator spends much (over half) time on efforts relating to basic skill emphasis and achievement in school.	1	2	3	4	A,B
B5.	Efforts to reduce teacher time on "clerical" tasks through aides, volunteers, creative scheduling and resources use have been made.	1	2	3	4	A,B
B6.	There is a structure, schedule and model for the teaching (delivery) of basic skills.	1	2	3	4	E
B7.	Alternative (remedial and accelerated) programs are in use (not just "pull-out" programs.	1	2	3	4	A,B
B8.	Written instructional objectives (processes) guide school programs.	1	2	3	4	E

		RESPONSES				SOURCES
B9.	Emphasis on some structured basic skills approach (Mastery Learning, Missouri Math Effectiveness, etc.).	1	2	3	4	,E
B10.	Common lists of skills agreed upon and used at/between grade levels.	1	2	3	4	B,E
B11.	Student achievement scores rising; students achieving "at or beyond" expectations.	1	2	3	4	B,E
OTHER						
B13.						
B14.						
SCHOOL CLIMATE						
C1.	Staff (teachers, administrators) work together to solve school problems and attain school goals.	1	2	3	4	A,B,D
C2.	Pride (sense of community) is evident (sense of "spirit").	1	2	3	4	B,D
C3.	Code of Conduct (consistent, firm, fair) developed, updated, used. This may be written in handbook, posted in hall, etc.	1	2	3	4	D,E
C4.	Motivational devices are evident (buttons, murals, photos, student work on display, slogans) for achievement and behavior (e.g., award days, shared responsibilities, etc).	1	2	3	4	D
C5.	School is neat, clean; vandalism is at a minimum; school appearance seems to be everybody's business. Pride in the facilities is evident.	1	2	3	4	B,D
C6.	Parents, volunteers, committees, etc. are available to support school goals and objectives.	1	2	3	4	B,D
C7.	Students know rules and follow them; teachers feel responsible for good discipline and behaviors of students.	1	2	3	4	B,C
C8.	Teacher/staff absenteeism is low (or has been reduced).	1	2	3	4	E
C9.	Pupil absenteeism/tardiness is low (or has been reduced).	1	2	3	4	E
C10.	Students seem involved in school planning, operation, activity.	1	2	3	4	C
C11.	Teachers/staff seem voluntarily involved in school. (Attend meetings, etc.).	1	2	3	4	B

		RESPONSES				SOURCES
C12.	School atmosphere is characterized by being orderly but not rigid; quiet but not oppresive.	1	2	3	4	D
C13.	Students seem "happy" and busily engaged in school.	1	2	3	4	C,D
C14.	Appropriate multicultural activities are evident.	1	2	3	4	B
	OTHER					
C15.						
C16.						
	STUDENT ASSESSMENT					
D1.	Student achievement is monitored regularly.	1	2	3	4	B
D2.	Teacher-made tests are used regularly to identify student progress at achieving instructional objectives.	1	2	3	4	B,E
D3.	Administrator regularly "spot checks" student achievement (reviews report cards, etc.)	1	2	3	4	A
D4.	Administration continuously evaluates teachers on their instructional performance (planning, etc.) rather than on obscure objectives or "traits."	1	2	3	4	A,B
D5.	Teacher lesson plans are in objective form for daily, weekly, quarterly (or unit) lessons. Plans allow for monitoring. Administrator reviews the plans.	1	2	3	4	A,E
D6.	Standardized testing program and teacher made tests are used to monitor school achievement of goals/objectives.	1	2	3	4	B,E
D7.	There are stated levels of performances/achievement for homework, etc.	1	2	3	4	E
D8.	Lists of "minimum competencies," instructional objectives, etc. are used as basis for monitoring progress consistently.	1	2	3	4	E
D9.	Staff development (workshops, courses, faculty meetings) on testing, measurement, test usage, etc., is continuous and comprehensive.	1	2	3	4	A,B,E
D10.	Staff agreement on standards for homework, passing work, etc. (Homework policy; grading standards, etc.) is evident.	1	2	3	4	B,E

		RESPONSES				SOURCES
	OTHER					
D11.						
D12.						
	EXPECTATIONS					
E1.	Building goals/objectives are established using national/regional norms (and school is expected to attain them).	1	2	3	4	B,E
E2.	Number (or percent) of pupils on honor rolls (etc.) increases.	1	2	3	4	E
E3.	Inservice programs focus on expectations, interactions, tests, etc.	1	2	3	4	F
E4.	Students are challenged academically regardless of their ability levels.	1	2	3	4	B,C
E5.	A system of rewards/honors/programs exists for student achievement.	1	2	3	4	B,C
E6.	Administration expects teachers/pupils/parents to support the school (as shown by positive interactions, letters, slogans, etc.).	1	2	3	4	B
E7.	Teachers expect each pupil to perform at least at that pupil's instructional level (as shown by positive interactions, achievement gains, homework, etc.).	1	2	3	4	B,C
E8.	There is emphasis on self discipline (be on time, get work done on time).	1	2	3	4	B,C
E9.	Principal expects teachers both to perform well as teachers and to encourage pupils to perform well (as shown by positive interactions, etc.).	1	2	3	4	A,B
E10.	Staff expects pupils to be responsible for their own behavior; emphasis is on self discipline and orderly conduct.	1	2	3	4	B
	OTHER					
E11.						
E12.						

SOURCES:

A = Principal Interview
B = Teacher Interviews
C = Student Interviews
D = Observation
E = Review of Files and Records